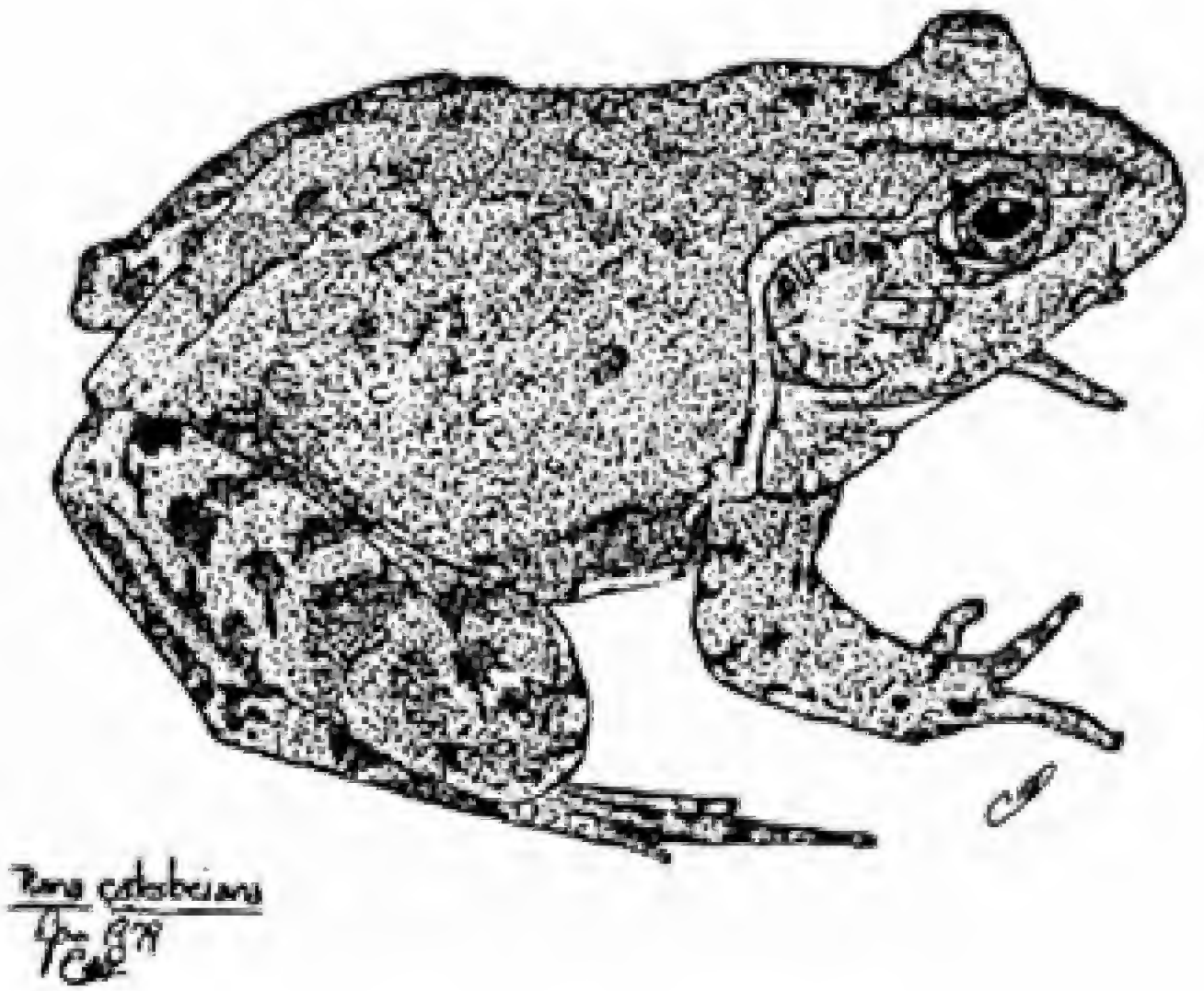
CATESBEIANA



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BULLETIN INFORMATION

Catesbeiana is published twice a year by the Virginia Herpetological Society. Membership is open to all individuals interested in the study of amphibians and reptiles and includes a subscription to *Catesbeiana*, two newsletters, and admission to all meetings. Annual dues for regular membership are $15.00 (see application form on last page for other membership categories). Payments received after September 1 of any given year will apply to membership for the following calendar year. Dues are payable to: Dr. Paul Sattler, VHS Secretary/Treasurer, Department of Biology, Liberty University, 1971 University Blvd., Lynchburg, VA 24502.

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EDITORIAL POLICY

The principal function of *Catesbeiana* is to publish observations and original research about Virginia herpetology. Rarely will articles be reprinted in *Catesbeiana* after they have been published elsewhere. All correspondence relative to the suitability of manuscripts or other editorial considerations should be directed to Dr. Steven M. Roble, Editor, *Catesbeiana,* Virginia Department of Conservation and Recreation, Division of Natural Heritage, 217 Governor Street, Richmond, VA 23219.

Major Papers

Manuscripts being submitted for publication should be typewritten (double spaced) on good quality 8½ by 11 inch paper, with adequate margins. Consult the style of articles in this issue for additional information, including the appropriate format for literature citations. The metric system should be used for reporting all types of measurement data. Computer diskettes (Word or WordPerfect format) are desired for longer papers. Submissions concerning the herpetofauna of selected areas, such as a state park or county, should be prepared in article rather than field note format. Articles will be refereed by the editor and at least one other qualified reviewer. All changes must be approved by the author before publication; therefore, manuscripts must be received by the editor before the first of March and September to be considered for publication in the spring or fall issue, respectively, of *Catesbeiana*. Reprints of articles are not available to authors; however, authors may reprint articles themselves to meet professional needs.

(Editorial policy continued on inside back cover)

CATESBEIANA

Bulletin of the Virginia Herpetological Society

Volume 22 Spring 2002 No. 1

Contents

Herpetofaunal Survey of Sherando Lake Recreation Area, Loves Run Pond Complex, Green Pond, and Humpback Rocks
Jason D. Gibson 3

Field Notes 14

President's Corner 22

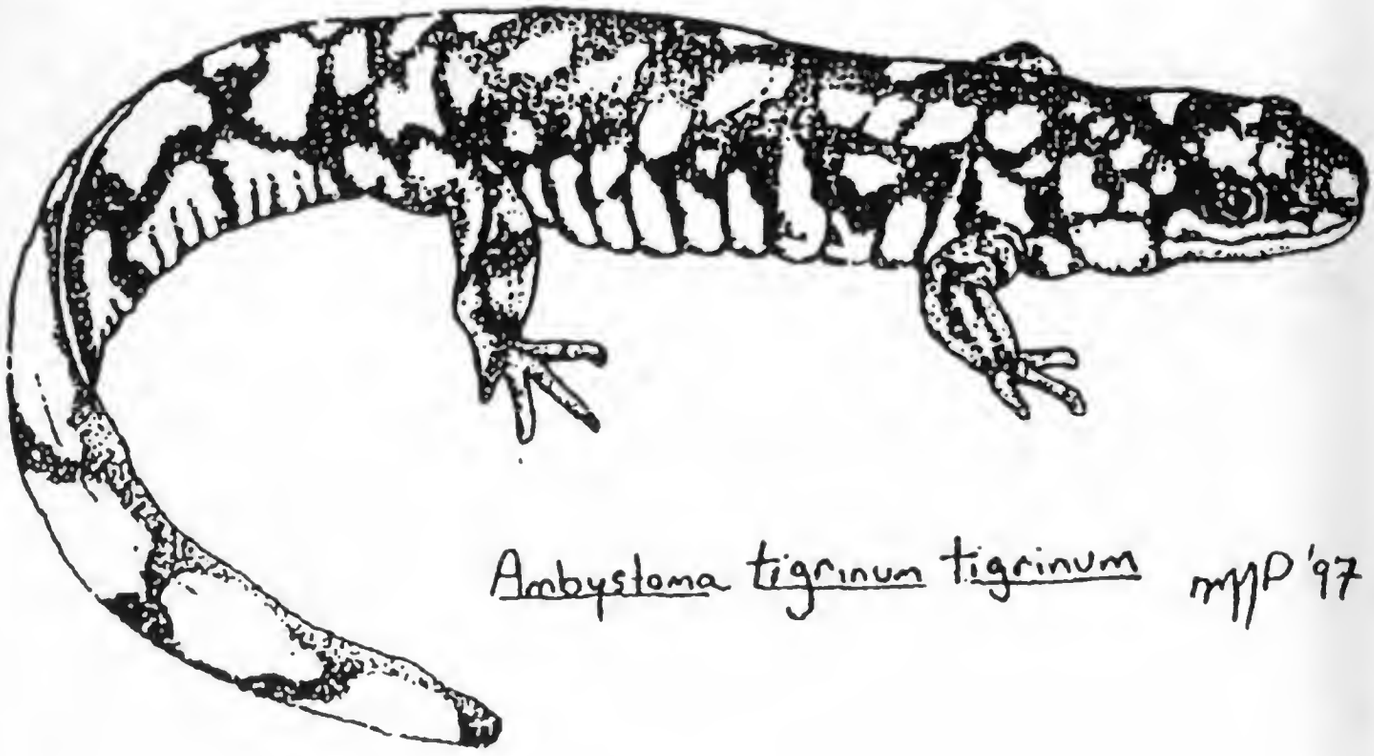
Minutes of the Fall 2001 VHS Meeting 25

Treasurer's Report 27

Ambystoma Symposium Announcement 28

Spring 2002 Meeting Notice 29

Next Meeting
May 17, 2002
Wytheville County Library
Wytheville, Virginia
See page 29 for details


Ambystoma tigrinum tigrinum mjp '97

Herpetofaunal Survey of Sherando Lake Recreation Area, Loves Run Pond Complex, Green Pond, and Humpback Rocks

Jason D. Gibson
181 Samuel Court
Danville, Virginia 24540

The Virginia Herpetological Society annually selects a site to survey within the state of Virginia. These surveys have been traditionally conducted in areas that are in need of survey effort and in search of new locations of particular species. Through these surveys, it is the aim of the VHS to obtain distributional information, behavioral and morphological data, and relative abundance assessments.

In 2001 the VHS spring survey focused its efforts on publicly owned land in Augusta and Nelson counties. The main morning survey focused on two areas in the Big Levels region of the George Washington National Forest. Although this area has been extensively surveyed (Mitchell and Buhlmann, 1999), we selected Green Pond, and three ponds in the Loves Run Pond Complex to survey. These sites, which have not been extensively surveyed, were of interest because of the high elevation of Green Pond and the proximity of the Loves Run Pond Complex to sites that have breeding populations of the state endangered tiger salamander (*Ambystoma tigrinum tigrinum*). Two main goals of this survey were to: (1) survey ponds in the Loves Run Pond Complex for evidence of breeding by tiger salamanders, and (2) document the herpetofauna at Green Pond, specifically relative abundance and species composition, plus frequency and nature of morphological deformities observed in captured animals.

After the morning survey, various sites in Augusta and Nelson Counties were surveyed by the VHS. Two main sites were selected and surveyed, including Sherando Lake Recreation Area and Humpback Rocks, a site located along the Blue Ridge Parkway.

Study Sites

Augusta County

Green Pond

Green Pond and the Loves Run Pond Complex are both found in the Big Levels area of the George Washington National Forest (Buhlmann et al., 1999). Green Pond is a high elevation (960 m) sphagnum bog that has been extensively described by Whittecar and Lawrence (1999). This site is of potential interest because of the declines in amphibians observed in other high elevation sites in North America (Blaustein and Wake, 1995; Drost and Fellers, 1996).

Loves Run Pond Complex

Loves Run Pond Complex is a series of sinkhole ponds in the general vicinity of a stream by that name. This area has an approximate elevation of 540 m. Specifically, the VHS surveyed ponds 21, 25, and 27 of Buhlmann et al. (1999). These ponds and the surrounding vegetation of this area were described by Buhlmann et al. (1999) and Fleming and Van Alstine (1999). Mitchell and Buhlmann (1999) have conducted extensive herpetofaunal surveys in this area.

Sherando Lake Recreation Area

Sherando Lake Recreation Area is located in the George Washington National Forest and is adjacent to Big Levels. This recreation area is used extensively for fishing, hunting, boating, hiking, and camping. Sherando has two man-made lakes that cover 7 and 25 acres, respectively. The Civilian Conservation Corps constructed 65 campsites in the 1930's. This area has a diversity of habitats including streams, lake margins, talus slope, and upland hardwood forest.

Nelson County

Humpback Rocks

Humpback Rocks is located between mileposts 5 and 9.3 along the Blue Ridge Parkway. This site derives its name from the unusual "hump-like" rock formations. This location contains a visitor center, picnic area, and three major hiking trails including Greenstone Trail, Mountain Farm Trail, and a section of the Appalachian Trail.

Methods and Materials

Sampling was conducted by the VHS on 19 May 2001 (three anuran vocalization records were obtained on 18 May by members camping in the Sherando Lake Recreation Area). Green Pond and the Loves Run Pond Complex were sampled primarly from 0930 h to 1100 h; several VHS members surveyed at the latter site for an additional 1-2 hours. Humpback Rocks and Sherando Lake Recreation Area were surveyed from 1230 h to 1600 h. Observations of anurans were obtained by visual encounter, seine and dip net sampling, and male vocalizations. Terrestrial salamanders were found by overturning rocks and logs. Aquatic and streamside salamanders were sought with seines and dip nets and by flipping rocks and logs in streambeds and the margins of these habitats. Survey techniques for turtles, lizards, and snakes included visual encounters and overturning woody debris and rocks. Photographs were taken to document species encountered and interesting behaviors. Data collected for each animal caught included size, microhabitat, behavior, and structural abnormalities. Environmental conditions were documented for each survey site.

Results

During this survey 13 species of amphibians (five salamanders and eight anurans) and ten species of reptiles (two turtles, one lizard, and seven snakes) were observed (Table 1). Only two species of amphibians were

observed at Green Pond. One amphibian and two reptile species were found around Humpback Rocks. Eight amphibians and six reptiles were found in the Sherando Lake Recreation Area. Ten amphibian and four reptile species were observed at the Loves Run Pond Complex.

Amphibians

Salamanders

Ambystoma tigrinum tigrinum (Eastern tiger salamander)

The eastern tiger salamander is a state endangered species (Pague and Buhlmann, 1991). Attempts to capture this species by seining in ponds 21 and 25 were unsuccessful. However, rapid sweeps with aquatic dip nets resulted in the capture of five larvae in pond 27 (Tiger pond). This is the first confirmed record of tiger salamanders at these ponds, which are approximately 10 km west of the nearest previously known breeding site (Mitchell and Buhlmann, 1999).

Eurycea longicauda longicauda (Long-tailed salamander)

One individual was found under a rock on a talus slope bordering Sherando Lake.

Notophthalmus viridescens viridescens (Red-spotted newt)

Red-spotted newts were observed at Humpback Rocks (one eft), Loves Run Pond Complex (Pond 21 - five adults and one eft; Pond 25 – four adults; Pond 27 - six adults), and Sherando Lake Recreation Area (one eft). Newts were found under logs, under a rock in a talus slope, and in ponds. The tail of one eft was missing. Two newts had the following measurements: 94 mm total length and 47 mm SVL, and 71 mm total length and 32 mm SVL.

Plethodon cinereus (Red-backed salamander)

Eleven red-backed salamanders were found under logs and rocks along the margins of Green Pond (six adults), pond 21 (two adults) and pond 25 (two adults), and in the talus slope that borders Sherando Lake (one adult). Nine salamanders exhibited the red stripe phase, one the lead phase, and one fit the description of the erythristic phase (Petranka, 1998). The lead phase individual was a gravid female that measured 92 mm total length and 42 mm SVL. One red stripe phase salamander measured 83 mm total length and 40 mm SVL.

Plethodon cylindraceus (White-spotted slimy salamander)

Five white-spotted slimy salamanders were found under cover objects along the margins of ponds 21 (one adult), 25 (two adults), and 27 (two adults), and in the woods surrounding these ponds. One salamander measured 151 mm total length and 76 mm SVL.

Anurans

Acris crepitans crepitans (Northern cricket frog)

Males were heard calling along the margins of ponds 21, 25, and 27. One captured individual measured 22 mm SVL.

Bufo americanus americanus (American toad)

American toads were heard calling along the margin of Sherando Lake on 18 May and one toad was found DOR on Sherando Lake Road.

Hyla versicolor (Gray treefrog)

Treefrogs were heard calling on 18 May in trees along the margin of Sherando Lake and on 19 May along the margins of ponds 21, 25, and 27.

Pseudacris crucifer crucifer (Northern spring peeper)

Male spring peepers were observed calling on 18 May along the margin of Sherando Lake and on 19 May along the margins of ponds 21, 25, and 27.

Rana catesbeiana (American bullfrog)

Two bullfrog tadpoles that were dipnetted in pond 21 measured 133 mm and 81 mm (total length). An adult was observed along the margin of Sherando Lake.

Rana clamitans melanota (Northern Green Frog)

One green frog was observed calling along the margin of pond 21. A dipnetted tadpole measured 99 mm (total length). An adult frog caught along the margin of Sherando Lake measured 85 mm SVL.

Rana palustris (Pickerel frog)

One juvenile frog was found in a marshy area around Green Pond.

Scaphiopus holbrookii (Eastern spadefoot)

One juvenile toad (28 mm SVL) was found in the forest near pond 21. Several toes were missing on one forefoot.

Reptiles

Turtles

Chelydra serpentina serpentina (Eastern snapping turtle)

A female snapping turtle was observed digging a nest at 0932 h on 19

May. The nest was dug at the top of a man-made earthen mound used to prevent vehicles from entering a footpath. Upon inspection later in the day, the nest was abandoned and without eggs.

Terrapene carolina carolina (Eastern box turtle)

One male box turtle with red irises was found on the road near the Loves Run Pond Complex.

Lizards

*Sceloporus undulatus hyacinthinus (*Northern fence lizard)

A gravid female was found in the woods surrounding a parking lot adjacent to Sherando Lake Road.

Snakes

Agkistrodon contortrix mokasen (Northern copperhead)

One juvenile snake was found under a rock on a talus slope bordering Sherando Lake.

Crotalus horridus horridus (Timber rattlesnake)

Seven specimens were found around the Humpback Rocks area. Four of the snakes were dark phase females, two were subadults (one light phase and one dark phase), and one was a light phase juvenile (approximately 390 mm TL). Six of the snakes were lying exposed and one was found under a rock slab. These animals were found between 1430 and 1455 h (air temperature ca. 65° F/18° C) at an approximate elevation of 1,021 m (3,350 feet).

Diadophis punctatus edwardsii (Northern ring-necked snake)

Ring-necked snakes were found under a log and a piece of bark in woods surrounding ponds 21 and 25 and under a rock in a talus slope along the edge of Sherando Lake. A total of three specimens were found. The snakes had the following measurements: 328 mm total length and 272 mm SVL, 229 mm total length and 183 mm SVL, and 153 mm total length and 113 mm SVL.

Elaphe obsoleta obsoleta (Black ratsnake)

One adult snake was found on Sherando Lake Road above the recreational beach area. This animal appeared to be injured, possibly run over by a vehicle.

Nerodia sipedon sipedon (Northern watersnake)

One juvenile northern watersnake was observed at pond 21.

Storeria occipitomaculata occipitomaculata (Northern red-bellied snake)

Two northern red-bellied snakes were observed during the survey. One was found under a rock in a talus slope bordering Sherando Lake and the other was found under a rock in the Humpback Rocks area. The snakes measured 136 mm total length, 108 mm SVL and approximately 130 mm total length, respectively.

Thamnophis sirtalis sirtalis (Eastern gartersnake)

One adult measuring 635 mm total length and 528 mm SVL was caught on a rocky slope bordering Sherando Lake. This animal exhibited very aggressive behavior.

Discussion

The day of this survey was cool, cloudy, and rainy. This may have been responsible for the low number of reptiles observed. We found 10 of 26 reptile species known from Augusta County (Mitchell, 1994; Mitchell and Reay, 1999). Amphibians were underrepresented by the survey (only 13 of 28 documented species). Frogs were well represented by our survey (eight of 10 documented species). The spadefoot toad was not recorded for Augusta County by Mitchell and Reay (1999) but was reported by Mitchell and Buhlmann (1999). This was the only animal found to contain a deformity/injury (missing toes). Our discovery of only five of the 18 salamander species documented for Augusta County could be due to sampling techniques, environmental conditions, or survey regions selected.

Green Pond had a very limited herpetofauna. The main amphibian found in this area was the red-backed salamander. This species is typically found under cover objects and lays its eggs in this microhabitat, and therefore would be shielded from the effects of UV radiation. Future studies and surveys of this and similar ponds should be conducted to determine if UV light or other environmental conditions are affecting the species that live in these habitats.

Acknowledgments

The following VHS members participated in this survey: Jack Boswell, John Boswell, Mitch Bowling, Colm DeVan, Lora DeVan, Chris Foster, David Garst, Jamie Garst, Jason Gibson, Anna Greenlee, Bob Greenlee, Mary Greenlee, Sarah Greenlee, Corben Hayslett, Mike Hayslett, Carol Heiser, Fred Huber, Marty Martin, Glenn Metzler, Jim Milcarek, Shelly Miller, Mike Pinder, Paul Sattler, Clay Smith, Arthur Smith, Amy White, Charise White, Jennifer White, John White, Brook Wilson, Dane Wilson, Gordon Wilson, Heather Wilson, Mallory Wilson, and Meredith Wilson. We would like to thank Fred Huber and Dawn Kirk for their assistance in site selection on the George Washington National Forest. Steve Roble, John White, and two anonymous reviewers provided comments on an earlier draft of this manuscript.

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Mitchell, J. C. and K. K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Virginia Department of Game and Inland Fisheries, Special Publication Number 1, Richmond, VA. 122 pp.

Pague, C. A., and K. A. Buhlmann. 1991. Eastern tiger salamander, *Ambystoma tigrinum tigrinum*. Pp. 431-433 *In* K. Terwilliger (coordinator), Virginia's Endangered Species. McDonald & Woodward Publishing Co., Blacksburg, VA.

Petranka, J. W. 1998. Salamanders of the United States and Canada. Smithsonian Institution Press, Washington, D.C. 587 pp.

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Table 1. Summary of the herpetofauna documented during the 2001 VHS spring survey. GP = Green Pond, 21 = Pond 21, 25 = Pond 25, 27 = Pond 27, HR = Humpback Rocks, SL = Sherando Lake. x = species observed and n = species observed near that area.

Species	GP	21	25	27	HR	SL
Amphibians						
Ambystoma t. tigrinum				x		
Eurycea l. longicauda						x
Notophthalmus v. viridescens		x	x	x	x	x
Plethodon cinereus	x	x	x			x
Plethodon cylindraceus		x	x	x		
Acris c. crepitans		x	x	x		
Bufo a. americanus						x
Hyla versicolor			x	x		x
Pseudacris c. crucifer		x	x	x		x
Rana catesbeiana		x				x
Rana clamitans melanota		x				x
Rana palustris	x					
Scaphiopus holbrookii		x				
Reptiles						
Chelydra s. serpentina		x				
Terrapene c. carolina		n				
Sceloporus undulatus hyacinthinus						x
Agkistrodon contortrix mokasen						x
Crotalus h. horridus					x	
Diadophis punctatus edwardsii			x			x
Elaphe o. obsoleta						x
Nerodia s. sipedon		x				
Storeria o. occipitomaculata					x	x
Thamnophis s. sirtalis						x

FIELD NOTES

Lampropeltis getula getula **(Eastern Kingsnake).** VA: Patrick Co., VA Rt. 8, 1.0 mi (1.6 km) S of Tuggle Gap. 7 May 2000. Robert S. Hogan.

On 7 May 2000, I found a DOR eastern kingsnake (*Lampropeltis getula getula*) on VA Rt. 8, one road mile (1.6 km) south of Tuggle Gap (junction of Blue Ridge Parkway and Rt. 8) in Patrick County. This is a new county record and the westernmost known locality for eastern kingsnakes in Virginia (Mitchell, J. C. 1994. The Reptiles of Virginia. Smithsonian Institution Press, Washington, D.C. 352 pp.; Mitchell, J. C. and K. K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Virginia Department of Game and Inland Fisheries, Special Publication 1, Richmond, Virginia. 122 pp.). The black kingsnake (*L. g. nigra*) occurs in far southwestern Virginia (Mitchell, op. cit.). The nearest reported locality for *L. g. getula* is from western Henry County in the Piedmont, whereas the nearest localities in the Blue Ridge are from Bedford County (Mitchell, op. cit.; Mitchell and Reay, op. cit.). The elevation of the Patrick County site is approximately 2450 ft (747 m). Mitchell (op. cit.) did not discuss elevations of the Virginia sites for this snake, but Palmer and Braswell (1995. Reptiles of North Carolina. University of North Carolina Press, Chapel Hill. 412 pp.) reported that the highest known elevation for *L. g. getula* in North Carolina is 701 meters (2300 ft).

The specimen has been deposited in the Virginia Museum of Natural History (VMNH 9414).

ROBERT S. HOGAN
2103 Brookfield Drive
Roanoke, Virginia 24018

Storeria occipitomaculata occipitomaculata **(Northern Red-bellied Snake).** VA: Rockbridge Co., US Forest Service Road 42, ca. 0.8 km E jct. Co. Rt. 608, Vesuvius. 23 September 2001. Paul R. Cabe.

On the afternoon of 23 September 2001, I found an adult red-bellied snake in leaf litter near a building (Nature Camp, Inc.) in the George Washington National Forest. The afternoon was sunny and mild. The

snake was photographed and released the same day. A photograph has been deposited in the Virginia Museum of Natural History.

This is the first verifiable record from Rockbridge County (Mitchell, J. C. and K. K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Virginia Department of Game and Inland Fisheries, Special Publication No. 1, Richmond, Virginia. 122 pp.), though there are records from several adjacent counties. In addition, a credible field observer (Leigh A. Beavers) reported a red-bellied snake crossing a gravel forest service road (Nature Camp Trail) on an evening in July 2001.

PAUL R. CABE
Biology Department
Washington and Lee University
Lexington, Virginia 24450

Nerodia sipedon sipedon (Northern Water Snake). VA: Pittsylvania Co., 1236 Honey Road. 23 September 2001. Alex Watkins.

On 24 September 2001, Alex Watkins, a student at Blairs Middle School, brought a juvenile northern water snake to school. This snake, which was discovered while being harassed by the collector's cat, measured 372 mm total length, 279 mm snout-vent length, and 93 mm tail length. This is one of the most wide-ranging snakes in Virginia, but this is the first vouchered record for this species from Pittsylvania County (Mitchell, J.C. 1994. The Reptiles of Virginia. Smithsonian Institution Press, Washington, D.C. 352 pp.; Mitchell, J. C. and K. K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Virginia Department of Game and Inland Fisheries, Special Publication No. 1, Richmond Virginia. 122 pp). There are only a few remaining counties in Virginia that lack records for the northern water snake. A color slide will be deposited in the Virginia Museum of Natural History.

JASON D. GIBSON
Blairs Middle School
200 Blairs Middle School Circle
Blairs, Virginia 24527

***Ambystoma jeffersonianum* (Jefferson Salamander).** VA: Craig Co., Bald Mountain, ca. 9.6 km NE New Castle. 19 July 2000. Fred C. Huber and Mike W. Donahue.

While inventorying for amphibians at a wildlife pond on the New Castle Ranger District of the Jefferson National Forest, we collected several *Ambystoma* larvae. They were raised to metamorphosis for definite identification and proved to be *Ambystoma jeffersonianum*. The small (30 feet wide, 3.5 feet deep) man-made pond is a round depression lacking significant emergent or submergent vegetation, with a substrate of silt and mud, covered with a layer of leaf litter. Other amphibian species observed at this pond included gray tree frog (*Hyla versicolor*), wood frog (*Rana sylvatica*), and red-spotted newt (*Notophthalmus viridescens*).

This is the first documented record for this species from Craig County (Tobey, F. J. 1985. Virginia's Amphibians and Reptiles: A Distributional Survey. Virginia Herpetological Society, Purcellville, Virginia. 114 pp.; Mitchell, J. C., and K. K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Virginia Department of Game and Inland Fisheries, Special Publication No. 1, Richmond Virginia. 122 pp.). Mitchell and Reay (op. cit.) plotted several records for this species in adjoining counties (except Botetourt), and Green and Pauley (1987. Amphibians and Reptiles in West Virginia. University of Pittsburgh Press. 241 pp.) documented records in neighboring Monroe County in West Virginia.

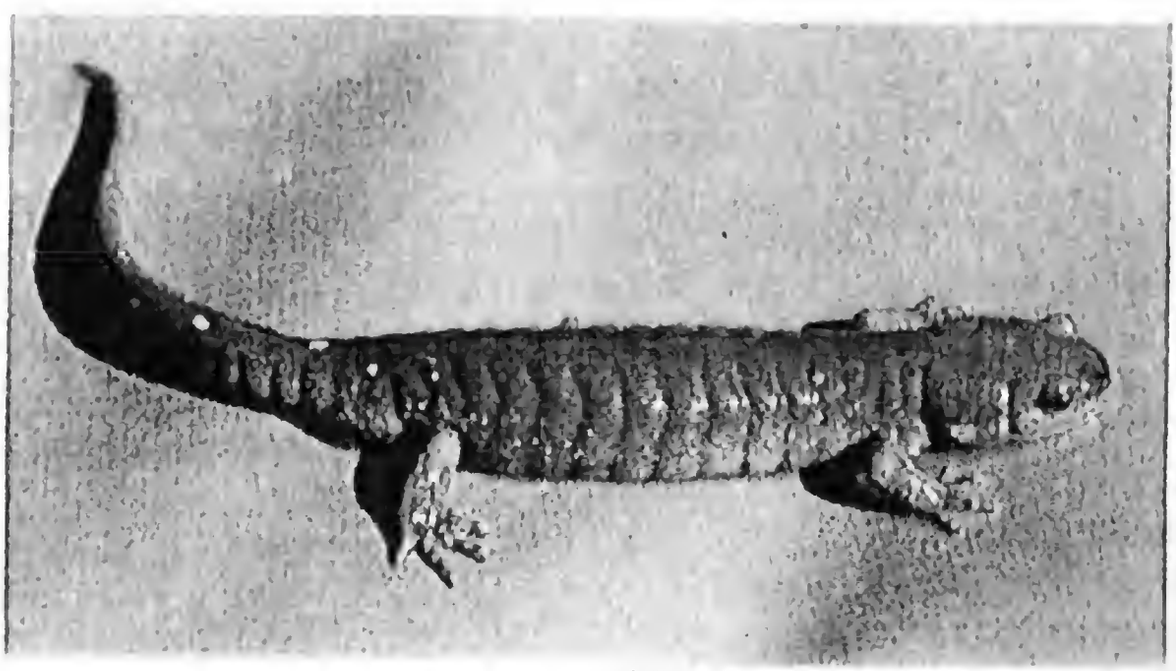
Color slides of this species will be deposited in the VHS archives at the Virginia Museum of Natural History.

FRED C. HUBER and **MIKE W. DONAHUE**
George Washington and Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, Virginia 24019-3050

***Ambystoma maculatum* (Spotted Salamander).** VA: Fairfax Co., Bull Run Regional Park, 7700 Bull Run Drive, 38°48'09.1"N, 77°28'35.3" W. 12 April 2002. Jennifer White and family.

An atypically colored and patterned, postbreeding, adult male spotted salamander (see photo below) was found near a vernal pool close to Bull Run at approximately 2000 h on 12 April 2002. The specimen measured 89 mm SVL and 177 mm total length and weighed 18 g. Its dorsum was brown with only 12 small yellow spots located mainly on the tail and head. The largest spot on the tail measured 1.7 mm in diameter and the single spot on the back was 0.50 mm in diameter. Four spots located on the head had measurements of 0.15-0.3 mm. The sides, limbs and head had numerous, very small, randomly placed spots (flecks) that averaged around 0.1 mm. The dorsum also had a few light flecks. Adult spotted salamanders that lack spots occur in low frequencies in certain populations (Conant, R. and J. T. Collins. 1998. A Field Guide to Amphibians and Reptiles, Eastern and Central North America. Third Expanded Edition. Houghton Mifflin Co., Boston. 616 pp.; Petranka, J. W. 1998. Salamanders of the United States and Canada. Smithsonian Institution Press, Washington D.C. 587 pp.).

JENNIFER WHITE
2815 N. Van Buren Street
Arlington, Virginia 22213-1517



Eurycea cirrigera (Southern Two-lined Salamander). VA: Pittsylvania Co., White Oak Mountain Wildlife Management Area. 7 October 2001. Jason D. Gibson.

On 7 October 2001, I discovered an adult southern two-lined salamander under a log in a dried ephemeral streambed on the White Oak Mountain Wildlife Management Area. The surrounding habitat included a mixed hardwood forest consisting of oaks, hickories, and maple. This is the first vouchered record for this species from Pittsylvania County (Mitchell, J. C. and K. K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Virginia Department of Game and Inland Fisheries, Special Publication No. 1, Richmond Virginia. 122 pp.). A color slide will be deposited in the Virginia Museum of Natural History.

JASON D. GIBSON
Blairs Middle School
200 Blairs Middle School Circle
Blairs, Virginia 24527

Eurycea guttolineata (Three-lined Salamander). VA: Pittsylvania Co., White Oak Mountain Wildlife Management Area. 21 October 2001. Jason D. Gibson.

On 21 October 2001, I found an adult three-lined salamander under a rock in an ephemeral streambed on the White Oak Mountain Wildlife Management Area.. The surrounding habitat included mature oaks (*Quercus* spp.) and hickories (*Carya* spp.). This is the first vouchered record for this species from Pittsylvania County (Mitchell, J. C. and K. K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Virginia Department of Game and Inland Fisheries, Special Publication No. 1, Richmond Virginia. 122 pp.). A color slide will be deposited in the Virginia Museum of Natural History.

JASON D. GIBSON
Blairs Middle School
200 Blairs Middle School Circle
Blairs, Virginia 24527

***Kinosternon subrubrum subrubrum* (Eastern Mud Turtle).** VA: Fairfax Co., Mason Neck National Wildlife Refuge. 30 March 2002. John M. Orr and Carl H. Ernst.

At 1515 h on 30 March 2002, a female *Kinosternon subrubrum subrubrum* (carapace length 96.4 mm) was found at the Mason Neck National Wildlife Refuge. The turtle's shell was caked with dried mud and it appeared to be emerging from the ground. When the turtle was picked up, two eggs were observed in the cavity in the ground. The turtle was quickly returned to the cavity and observed from a distance. She alternately rocked back and forth and then rested, so additional eggs may have been laid. At 1527 h the turtle moved forward and began covering the nest with her hind legs. At 1533 h she made a U-turn and headed away from the nest.

Air temperature at the time of nesting was 27.8° C. Soil temperature at the approximate depth of the nest was 12.4° C. The nest was located near the edge of a mowed field. The mass of the turtle was 169 g after nesting.

Mud turtles have been reported to nest as early as 31 March in southeastern Virginia (Richmond, N.D. 1945. Nesting habits of the mud turtle. Copeia 1945: 217-219.). Nesting this early is unusual, however, especially in northern Virginia. At Mason Neck, mud turtles normally do not emerge from hibernation until April (Ernst, C.H. et al. 1997. The amphibians and reptiles of Ft. Belvoir and northern Virginia. Bulletin of the Maryland Herpetological Society 33: 1-62) and will nest between 29 May and 22 June (Gotte, S.W. 1988. Nest site selection in the snapping turtle, mud turtle, and painted turtle. M.S. Thesis. George Mason University, Fairfax, Virginia. 135 pp.). The field where the turtle was found ovipositing is a nesting site for many other turtles later in spring. These nests suffer heavy predation. Early nesting could be an adaptation to avoid predation.

JOHN M. ORR and **CARL H. ERNST**
Department of Biology, 3E1
George Mason University
Fairfax, Virginia 22030-4444

***Chelydra serpentina serpentina* (Eastern Snapping Turtle).** VA: Accomack Co., Co. Rt. 638, ca. 3.9 km W jct. Co. Rt. 718; ca. 5.5 km W Onancock; 21 May 2001. Timothy R., Michele L., and Timothy W. Brophy.

According to Mitchell (1999. Checklist and keys to the amphibians and reptiles of Virginia's Eastern Shore. Catesbeiana 19: 3-18), the life histories of nearly all herpetofaunal species on Virginia's Eastern Shore remain virtually unknown . At 0645 h on 21 May 2001, we found a DOR *Chelydra s. serpentina* along Co. Rt. 638. Based on its position, the turtle seemed to be leaving an agricultural field and heading in the direction of a wooded area that had been partially clearcut in the last few years.

The adult female had the following straight-line measurements: greatest carapace length (232 mm), midline carapace length (225 mm), and midline plastron length (164 mm). Upon dissection, 18 shelled eggs were discovered in the abdominal cavity. The eggs were white, spherical, and each possessed a large dimple at one end. The diameter of 11 undamaged eggs ranged from 26.2–27.9 mm (measured with dial calipers) and averaged 27.0 ± 0.62 mm (mean ± 1 SD).

Nesting on nearby Chincoteague and Assateague Islands occurs from mid-May through late June or early July. During this time, females deposit a single clutch of 8-46 (mean = 25.1, n = 13 clutches) spherical eggs with diameters of 23–33 mm (Mitchell, J. C. and J. M. Anderson. 1994. Amphibians and Reptiles of Assateague and Chincoteague Islands. Virginia Museum of Natural History Special Publication 2, Martinsville, Virginia. 120 pp.). Warming ambient temperatures and light rain seem to trigger nesting activity in female snapping turtles (Ernst, C. H. et al. 1994. Turtles of the United States and Canada. Smithsonian Institution Press, Washington, D.C. 578 pp.). It had been warm and raining periodically for each of the three days prior to the discovery of this female turtle. She was undoubtedly searching for a suitable nesting site.

TIMOTHY R. BROPHY
New Covenant Schools
1350 Liggates Road
Lynchburg, Virginia 24502

Rana clamitans melanota (Northern Green Frog). VA: Pittsylvania Co., 181 Samuel Court. 22 September 2001 and 9 March 2002. Jason D. Gibson.

On 22 September 2001, I found a juvenile green frog foraging in grassy vegetation beside a spring-fed stream, and observed another green frog on 9 March 2002 at the same location. These represent early and late activity dates for this species in Pittsylvania County, and are the first documented records of green frogs from this county (Mitchell, J. C. and K. K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Virginia Department of Game and Inland Fisheries, Special Publication No. 1, Richmond Virginia. 122 pp.). A color slide will be deposited in the Virginia Museum of Natural History.

JASON D. GIBSON
Blairs Middle School
200 Blairs Middle School Circle
Blairs, Virginia 24527

President's Corner

For my first President's Corner, I would like to introduce myself briefly. My name is Jason Gibson. I have been a science teacher for eight years and a member of the VHS for six years. Paul Satter was the first VHS member with whom I had contact. I corresponded with him through mail, asking him questions about herps, and he invited me to join the society. I appreciate his friendship and his willingness to share his enthusiasm for herps with me. My first spring collecting trip was the survey of the Naval Security Group Activity Northwest facility in Chesapeake, Virginia. During this trip, I was able to see for the first time the spotted turtle, little grass frog, and eastern kingsnake. Ever since then I have been hooked on herps. What has excited me most about the VHS is the common interest that all the members share in studying and protecting Virginia's reptiles and amphibians.

I would like to thank our past president, Bob Greenlee, for all of the hard work that he has put into the organization of the meetings. Unless you have done it, you don't appreciate the time and effort required to organize a meeting. Bob did a tremendous amount of work and we all appreciate his efforts. The most memorable trip to me that he organized was the survey of the Northern Neck. I will never forget all of the spadefoot toads that were found. I would also like to thank Paul Sattler for his work as secretary/treasurer. Paul has graciously volunteered again to be secretary/treasurer for another two-year tour. John White has done an excellent job on the VHS website. If you have not visited the website, please do so. You are in for a real treat. John has also been very helpful at the spring surveys and with the teacher workshops. He is our new vice president and has already become invaluable in all aspects of VHS society functioning. Shelly Miller volunteered last year to be the newsletter editor and has done an excellent job. She has made our society more environmentally friendly by making the newsletter electronic thus saving paper and money. Last but not least, I would like to thank Steve Roble for his work as editor of *Catesbeiana*. Steve has done a superb job as editor.

President's Corner

The fall meeting of the VHS was a success because of all the people who volunteered to help with the educational workshop and who volunteered to make presentations. The teacher workshop had 12 participants. The participants consisted of nature center workers, elementary, middle, and high school teachers, and a student teacher. The following people helped make the workshop interesting and useful to the people who attended: Kathy Quindlen, Mike Pinder, John White, and George Zug. The teacher workshop is a valuable piece of our Society's mission of education. When we get an educator excited about herps, he or she will in turn touch hundreds of lives during their careers. The presentation session had four speakers and an audience of approximately 31 people. Dr. George Zug led off with a presentation entitled "Can Bones Tell Time?" Tom Akre, a graduate student at George Mason University, presented a very informative talk entitled "Wood Turtles in Virginia; the Conservation Biology of a Threatened Species." Tom Wilson, another student at George Mason University presented "The Status and Conservation of *Clemmys guttata*." Todd Georgel finished the presentations with a talk on "Seasonal Activity and Predator-prey Size Relationships in Carpenter Frogs (*Rana virgatipes*) in Virginia." The great strength of our society is its people. Many thanks to those who contributed by helping to teach the workshop and to those who gave presentations at the meeting.

Now I would like to discuss what I envision for the next year. At the spring meeting I want to discuss the possibility of our society donating some funds to The Nature Conservancy. One of our goals as a society calls for the conservation of amphibians and reptiles. I see no better way to conserve them than to help preserve their habitat. Habitat destruction and fragmentation is one of the leading causes of amphibian and reptile declines. I also think that the VHS needs to begin to look for possible candidates for the next officer election. I would like to see a pool of candidates that members can get a chance to vote on for the 2003 elections. I would also like to discuss a possible location for the 2003 spring survey. Many members have complained that the meetings for the fall and spring are not announced far enough in advance. I would like to remedy this. The spring meeting this year will be held in Wytheville, Virginia (please see announcement for more details) and will have a slightly different format.

The survey will be for two days for people who would like to stay another day. The Friday night meeting will also feature, in addition to the business meeting and slide show of possible species to be found, a guest speaker who will present some research results of work they have done in Virginia.

For the Fall 2002 meeting, a symposium on the genus *Ambystoma* (mole salamanders) has been planned (see announcement for more details). I would like to have as many people as possible who have been studying these interesting creatures to present their observations and research.

My final words for this President's Corner will include a rallying cry to the VHS members. We need your help to make this society work. If you have observations and research that you can contribute to *Catesbeiana*, please do it. Steve Roble, *Catesbeiana* editor, would love to help you get a field note or major paper in shape for publication. He would love to publish one of your drawings or photos too. If you read past editions of the journal, you will see that he has shouldered many of the issues with his own work. We need to help him out. You can also help by presenting papers at the fall meetings or helping with the educator's workshop. We need people to participate in spring collecting surveys, bring refreshments to meetings, donate auction items, participate in the annual photo contest, and bring specimens for people to observe and photograph. We want you to contribute in whatever way you can to make our society function to the benefit of conserving the environment and educating people about the animals we find so interesting.

Jason Gibson
VHS President

Minutes of the VHS Fall Meeting
October 27, 2001
Northern Virginia Community College
Annandale, Virginia

Bob Greenlee opened the meeting at 11:15 AM. The Treasurer's Report was printed in *Catesbeiana* 21(2). Currently, after paying for *Catesbeiana* 21(2), the checking account will house just over $3,500. Dues reminder notices will be mailed out in December for those members who have not prepaid their 2002 dues. For the Newsletter Editor's Report, Shelly Miller reported that 162 Newsletters were mailed out with five returned for a non-current address. Send any appropriate materials to Shelly at smiller@dgif.state.va.us. Steve Roble gave the *Catesbeiana* Editor's report via email. A total of 185 copies of volume 21(2) were printed with 162 mailed for a total cost of $548.11. Steve requests that any images suitable for *Catesbeiana* be sent to him as the available supply has been exhausted. John White reported that the VHS Web Site could still use some photographs. An examination of the web site will indicate which species are needed.

Possible meeting sites for the Spring 2002 survey were discussed. An 8,000 acre site recently purchased by the Virginia Department of Game and Inland Fisheries seemed the most likely site. It is located just south of Wytheville, near the intersection of I-64 and I-77. The site has never been surveyed intensively for herps. It has a very sandy substrate. Access is limited and would involve considerable walking. There are some small streams, but little water. It is a somewhat unique habitat, and could yield some unusual reptiles. Lodging should be easy to find, both motels and camping.

Other sites mentioned were Richard Bland College. An offer to make the College's property available to the VHS has been made. N. G. Reeves Park is a new acquisition by Loudoun County, near Dulles International Airport. There will be a series of surveys next April by different biological organizations to determine what species are present. Dennis Desmond requested that the VHS consider participating in a survey, especially to determine what amphibians are present. It is likely that a survey separate from the VHS Spring meeting will be held at this park.

The election of new officers was made. Jason Gibson assumed the position of President from his previous position as President-Elect. When nominations were opened for the office of Secretary/Treasurer, Paul Sattler said he would accept a nomination for a second term. He was nominated and elected. When nominations were opened for the office of Vice-President, John White said that he would accept the nomination. He was nominated and elected.

The meeting was adjourned at 11:50 for lunch, with the paper session to follow.

Paul Sattler
VHS Secretary/Treasurer

REMINDERS

Check the year on your mailing label to verify that you have paid your 2002 dues. If you last paid dues in 2001, please send your renewal form (see last page of this issue) and dues to Dr. Paul Sattler, VHS Secretary/Treasurer, Department of Biology, Liberty University, 1971 University Blvd., Lynchburg, VA 24502.

If you would like to receive the next issue of the VHS Newsletter via email rather than as a printed copy, please contact Shelly Miller at smiller@dgif.state.va.us. Also send any appropriate materials for inclusion in the newsletter to Shelly Miller, Virginia Herpetological Society, 1700 Blakemore Road, Richmond, VA 23225, or via email to the address listed previously.

Treasurer's Report
April 2002

Previous Checking Balance	**$3960.27**
Receipts:	
Fall Workshop Registration	$439.00
October Memberships	$ 95.00
November Memberships	$ 90.00
December Memberships	$113.00
January Memberships	$185.00
February Memberships	$271.00
March Memberships	$290.00
April Memberships	$ 30.00
Total Receipts	$1513.50
Disbursements:	
Catesbeiana 21(2)	$548.11
Fall Workshop Expenses	$201.67
Newsletter 12(1)	$249.03
Total Disbursements	$998.81
Balance on Hand April, 2002	
Checking	**$4474.96**

Paul Sattler
VHS Secretary/Treasurer

Ambystoma Symposium Announcement
Virginia Herpetological Society

The state of Virginia has six species of ambystomatid (mole) salamanders within its borders. These species include the spotted salamander (*Ambystoma maculatum*), mole salamander (*A. talpoideum*), marbled salamander (*A. opacum*), eastern tiger salamander (*A. t. tigrinum*), Jefferson salamander (*A. jeffersonianum*), and Mabee's salamander (*A. mabeei*). This unique family of salamanders has adapted to breeding in a special type of wetland called a vernal pool. These ephemeral pools typically dry up in the summer and fill during the winter and spring. Only certain kinds of organisms have adapted to the harsh conditions found in these pools. Ambystomatid salamanders have gilled larvae, but most adults are terrestrial. Gilled (neotenic) adults have been found in several species but they are rare. Ambystomatid salamanders are explosive breeders. Mating and oviposition occur in fall, winter, and spring depending on the species. One species, the marbled salamander, stays with its eggs and provides some parental care.

The status of three species of *Ambystoma* (spotted, marbled, Jefferson) in Virginia appears secure, but little current literature is available to confirm this. The eastern tiger salamander is a state endangered species, Mabee's salamander is a state threatened species, and the mole salamander is listed as a species of special concern by DGIF. Habitat destruction and fragmentation are probably the major threats to the health and survival of these species, but recent observations regionally and locally suggest other possible threats including UV radiation, acid precipitation, fungal infection, and global warming.

In an effort to determine the status of *Ambystoma* salamanders in Virginia, a symposium will take place on October 12, 2002, at the Holiday Lake 4-H Educational Center in Appomattox, Virginia. The goal of this symposium is to bring together both amateur and professional herpetologists who are conducting research on these animals. Possible topics (depending on available speakers) are current research and observations on each of the six *Ambystoma* species, sampling techniques and equipment, and overall status in Virginia.

Anyone interested in giving a presentation should contact Jason Gibson at (434) 724-9034 or **frogman31@earthlink.net** or John White at **reptiles@erols.com** as soon as possible. In addition to the symposium, a photo contest will be held with an ambystomatid salamander theme.

ANNOUNCEMENT
SPRING 2002 MEETING
VIRGINIA HERPETOLOGICAL SOCIETY

This year we will be surveying The Big Survey Wildlife Management Area in Wythe County. This newly-acquired state property contains 8,300 acres of mixed pine and hardwood forests in Virginia's southwestern mountains. The area includes Stuart Mountain, Lick Mountain, Sand Mountain, and Swecker Mountain. Wythe County is located in the Ridge and Valley physiographic province.

Schedule:

Friday May 17

7:00 PM	Business meeting (Wytheville County Library)
7:45 PM	Break
8:00 PM	Slide show of potential species
8:30 PM	Guest speaker

Saturday May 18

8:00 AM	Meet at Big Walker Game and Fish Club
8:30 AM	Break into survey groups and travel to designated survey locations
12:30 PM	Free to survey outside of initial survey locations
5:30 PM	Return to Big Walker Game and Fish Club to compile survey reports and photograph collected specimens

Sunday May 19

8:00 AM	Meet at Big Walker Game and Fish Club for additional surveys.

Accommodations:

There are numerous motels and hotels located in the town of Wytheville. This web site has a complete listing of places to stay: http://chamber.wytheville.com/

For more information, maps, and updates please visit the VHS website: http://fwie.fw.vt.edu/VHS/2002_spring_survey.htm

Directions to Wytheville County Library:

Take I-81 to the city of Wytheville, exit at U.S. Route 11 South. Turn right onto N. 11th St. and then left onto Monroe Street. The library is located at 300 Monroe Street.

Directions to Big Walker Game and Fish Club:

Take I-81 to exit 77 south. At the end of the ramp turn left over the interstate, turn right onto the frontage road for 1.6 miles to SR 649, turn left onto SR 649 (Atkins Mill Road)for about 0.8 miles. Bear left onto SR 720 (Whippoorwill Road). Stay on Whippoorwill Road for about 1.5 miles to the Big Walker Game and Fish Club on the left.

Potential Species List (Compiled by John White)

Known Herps of Wythe County

Ambystoma maculatum	Spotted salamander
Aneides aeneus	Green salamander
Bufo americanus	American toad*
Desmognathus fuscus	Northern dusky salamander*
Desmognathus monticola	Seal salamander
Desmognathus ochrophaeus	Allegheny mountain dusky salamander
Desmognathus orestes	Blue Ridge dusky salamander
Desmognathus quadramaculatus	Black-bellied salamander
Eurycea cirrigera	Southern two-lined salamander
Eurycea l. longicauda	Longtail salamander
Gyrinophilus p. porphyriticus	Northern spring salamander
Hemidactylium scutatum	Four-toed salamander
Plethodon cinereus	Northern red-backed salamander
Plethodon cylindraceus	White-spotted slimy salamander
Plethodon glutinosus	Northern slimy salamander
Plethodon richmondi	Ravine salamander
Plethodon yonahlossee	Yonahlossee salamander
Pseudacris brachyphona	Mountain chorus frog
Pseudotriton montanus diastictus	Midland mud salamander
Pseudotriton r. ruber	Northern red salamander *
Rana catesbeiana	Bullfrog
Rana clamitans melanota	Northern green frog
Rana palustris	Pickerel frog*

Carphophis a. amoenus	Eastern worm snake
Chrysemys p. picta	Eastern painted turtle
Coluber c. constrictor	Northern black racer
Diadophis punctatus edwardsii	Northern ringneck snake
Elaphe o. obsoleta	Black rat snake
Lampropeltis t. triangulum	Eastern milk snake
Nerodia s. sipedon	Northern water snake
Opheodrys a. aestivus	Rough green snake
Sceloporus undulatus hyacinthinus	Northern fence lizard*
Sternotherus odoratus	Eastern musk turtle
Terrapene c. carolina	Eastern box turtle*

Herps likely to be found in Wythe County

Bufo fowleri	Fowler's toad
Eurycea lucifuga	Cave salamander
Pseudacris c. crucifer	Northern spring peeper
Rana sylvatica	Wood frog*
Notophthalmus v. viridescens	Red-spotted newt
Agkistrodon contortrix mokasen	Northern copperhead
Chelydra s. serpentina	Eastern snapping turtle
Heterodon platirhinos	Eastern hognose snake
Regina s. septemvittata	Queen snake
Thamnophis s. sirtalis	Common garter snake*

Herps that could possibly be found in Wythe County

Pseudacris feriarum	Upland chorus frog
Cryptobranchus a. alleganiensis	Hellbender
Desmognathus welteri	Black mountain salamander
Plethodon jordani	Jordan's salamander
Plethodon wehrlei	Wehrle's salamander
Apalone s. spinifera	Eastern spiny softshell turtle
Crotalus h. horridus	Timber rattlesnake
Eumeces fasciatus	Five-lined skink
Pituophis m. melanoleucus	Northern pinesnake

Editor's note: * = species observed on Big Survey property on July 22-23, 1998 by Steve Roble and Chris Hobson (Virginia Department of Conservation and Recreation, Division of Natural Heritage) incidental to a rare species survey.

MEMBERSHIP APPLICATION

I wish to _____ initiate _____ renew membership in the Virginia Herpetological Society for the year _____ 2002 _____ 2003 _____ 2004.

Name _____

Address _____

_____

_____ Phone _____

email address: _____

Dues Category: ____ Regular ($15.00)
____ Family ($20.00)
____ Under 18 ($8.00)
____ Life ($225.00)

Interests: ____ Amphibians ____ Reptiles
____ Distribution ____ Research
____Captive Husbandry
___ Specifically _____

Make checks payable to the Virginia Herpetological Society and send to: Dr. Paul Sattler, VHS Secretary/Treasurer, Department of Biology, Liberty University, 1971 University Blvd., Lynchburg, VA 24502

Visit the VHS web site at: http://fwie.fw.vt.edu/VHS/

Field Notes

This section provides a means of publishing natural history information on Virginia's amphibians and reptiles that does not lend itself to full-length articles. Observations on geographic distribution, ecology, reproduction, phenology, behavior, and other topics are welcomed. Field Notes will usually concern a single species. The format of the reports is: Scientific name (followed by common name in parentheses), state abbreviation (VA), county and location, date(s) of observation, observer(s), data, and observations. The name(s) and address(es) of the author(s) should appear one line below the report. Consult the editor if your information does not readily fit this format. ALL FIELD NOTES MUST INCLUDE A BRIEF STATEMENT EXPLAINING THE SIGNIFICANCE OF THE RECORD (e.g., new county record) OR OBSERVATION (e.g., unusual or rarely observed behavior, extremely early or late seasonal record, abnormal coloration, etc.). Submissions that fail to include this information are subject to rejection. Relevant literature should be cited in the body of the text (see Field Notes in this issue for proper format). All submissions will be reviewed by the editor (and one other person if deemed necessary) and revised as needed; all changes must be approved by the author(s) before publication.

If the field note contains information on a new county (or state) record, verification is REQUIRED in the form of a voucher specimen deposited in a permanent museum (e.g., Virginia Museum of Natural History) or a color photograph (print or slide) deposited in the archives of the Virginia Herpetological Society. Photographs should be sent to the editor for verification and archiving purposes; the identity of voucher specimens must be confirmed by a museum curator or other qualified person. Include the specimen number if it has been catalogued. Prospective authors of distribution reports should consult Mitchell and Reay (1999. *Atlas of Amphibians and Reptiles in Virginia*), Mitchell (1994. *The Reptiles of Virginia*), Tobey (1985. *Virginia's Amphibians and Reptiles: A Distributional Survey*) and other recent literature to determine if they may have a new county record. Species identification for observational records (e.g., behavior) should be verified by a second person whenever possible.

The correct citation format is: Tobey, F. J. 1989. Field notes: *Coluber constrictor constrictor. Catesbeiana* 9(2): 35.

Photographs

High contrast black-and-white photographs of amphibians and reptiles will be considered for publication if they are of good quality and are relevant to an accompanying article or field note. Submissions should be no larger than 5 x 7 inches and printed on glossy paper. Published photographs will be deposited in the archives of the Virginia Herpetological Society.